

IN THE CLAIMS:

1. (currently amended) A method for reconstructing an image of an object in a computed tomographic imaging system, said method comprising:

scanning an object using a computed tomographic (CT) imaging apparatus to acquire projections of the object;

determining a set of thresholds utilizing said-the projections;

associating selected smoothing kernels with said-the thresholds;

utilizing said via the computed tomographic imaging system, the smoothing kernels and said-the projections to produce three-dimensional smoothed projections in accordance with said-the thresholds; and

filtering and backprojecting the three-dimensional smoothed projections to generate an image of the object in the computed tomographic imaging system.

2. (currently amended) A method in accordance with Claim 1 wherein said determining a set of thresholds comprises determining a set of four thresholds comprising including a high threshold, a medium threshold, a low threshold, and a very low threshold, and wherein a-one of the smoothing kernel kernels is associated with each said-threshold of the thresholds.

3. (currently amended) A method in accordance with Claim 2 wherein a one-to-one correspondence exists between said-the smoothing kernels and said-the thresholds.

4. (canceled)

5. (currently amended) A method in accordance with Claim 1 wherein said utilizing the smoothing kernels and said-the projections ~~to produce smoothed projections~~ comprises utilizing a smoothing gain factor to modulate smoothing of said-the smoothed projections.

6. (currently amended) A method in accordance with Claim 5 wherein said-the smoothing gain factor is a function of said-the projections.

7.-14. (canceled)

15. (currently amended) A CT imaging apparatus comprising:

a detector;

a source configured to project a beam of x-rays toward said detector; and

a computer system operatively coupled to at least one of said detector and said source,  
said computer system comprising:

a first module configured to scan an object to acquire projections of the object;

a second module configured to determine a set of thresholds utilizing ~~said-the~~ projections;

a third module configured to associate selected smoothing kernels with ~~said-the~~ thresholds;

a fourth module configured to utilize ~~said-the~~ smoothing kernels and ~~said-the~~ projections to produce three-dimensional smoothed projections in accordance with ~~said-the~~ thresholds; and

a fifth module configured to filter and backproject the three-dimensional smoothed projections to generate an image of the object.

16. (currently amended) An apparatus in accordance with Claim 15 wherein, to determine ~~a-the~~ set of thresholds, said second module is configured to determine a set of four thresholds ~~comprising-including~~ a high threshold, a medium threshold, a low threshold, and a very low threshold[[.]] and to associate ~~a-one of the smoothing kernel-kernels~~ with each ~~said threshold of the thresholds~~.

17. (currently amended) An apparatus in accordance with Claim 16 wherein ~~said the~~ smoothing kernels and ~~said-the~~ thresholds exist in one-to-one correspondence.

18. (canceled)

19. (currently amended) An apparatus in accordance with Claim 15 wherein, to utilize ~~the~~ smoothing kernels and ~~said-the~~ projections to produce ~~the~~ three-dimensional

smoothed projections, said fourth module is configured to utilize a smoothing gain factor to modulate smoothing of said the smoothed projections.

20. (currently amended) An apparatus in accordance with Claim 19 wherein said the smoothing gain factor is a function of said the projections.

21.-28. (canceled)

29. (currently amended) A computer-readable computer storage medium having comprising instructions thereon, said instructions configured to instruct a computer to:

determine a set of thresholds utilizing projections obtained by scanning an object;

associate selected smoothing kernels with said the thresholds;

utilize the smoothing kernels and said the projections to produce three-dimensional smoothed projections in accordance with said the thresholds; and

filter and backproject the three-dimensional smoothed projections to generate an image of the object.

30. (currently amended) A computer-readable computer storage medium in accordance with Claim 29 wherein, to determine a-the set of thresholds, said computer-readable medium is instructions are further configured to instruct the computer to determine a set of four thresholds comprising including a high threshold, a medium threshold, a low threshold, and a very low threshold[[,]] and to associate a-one of the smoothing kernel kernels with each said threshold of the thresholds.

31. (currently amended) A computer-readable computer storage medium in accordance with Claim 30 wherein said the smoothing kernels and said the thresholds exist in one-to-one correspondence.

32. (canceled)

33. (currently amended) A computer-readable computer storage medium in accordance with Claim 29 wherein, to utilize the smoothing kernels and said the projections to produce the three-dimensional smoothed projections, said machine readable medium is

instructions are further configured to instruct the computer to utilize a smoothing gain factor to modulate smoothing of said-the smoothed projections.

34. (currently amended) A computer-readable computer storage medium in accordance with Claim 33 wherein said-the smoothing gain factor is a function of said-the projections.

35.-42. (canceled)